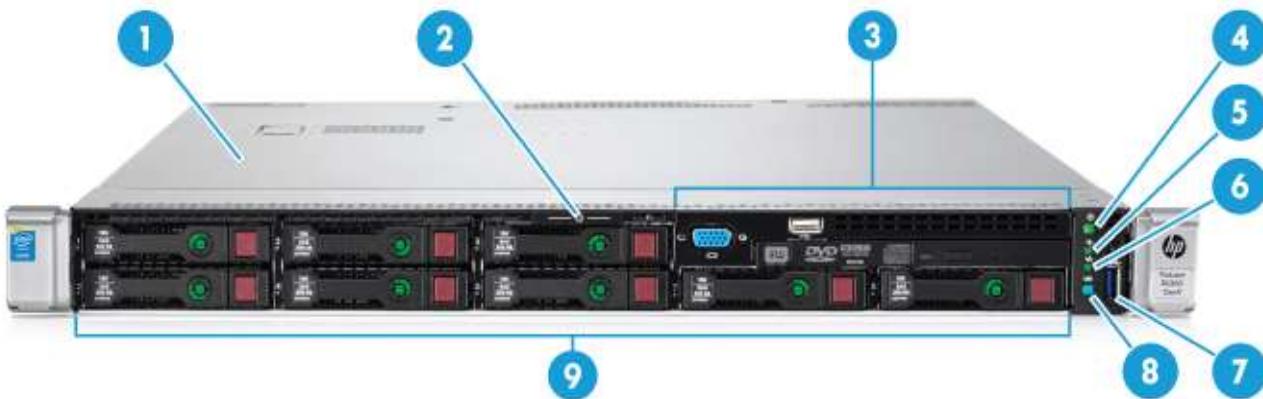


Overview

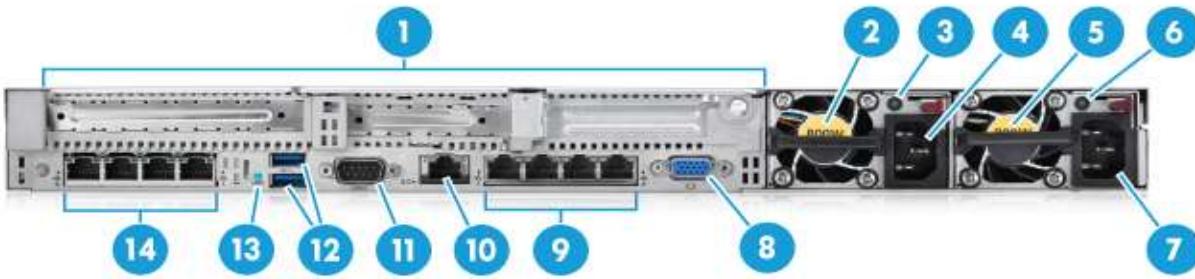
HP ProLiant DL360 Generation9 (Gen9)

HP's leading server for dense general-purpose computing, the HP ProLiant DL360 Gen9 Server delivers increased performance with the best memory and I/O expandability packed in a 1U dense rack design. Reliability, serviceability and always on availability, backed by a comprehensive warranty, make it ideal for the most space constrained server workloads.



Front View

1. Access Panel
2. Serial Label Pull Tab
3. HP Universal Media Bay
NOTE: Shown w/VGA, USB 2.0 and DVD-RW option.
Alternative options 2 SFF HDDs or VGA and USB 2.0.
4. Power On/Standby button and system power LED button
5. Health LED
6. NIC Status LED
7. USB 3.0 Connector
8. Unit Identification Button & LED
9. SAS/SATA/SSD Drive Bays
NOTE: 8SFF Model shown, 4LFF and 8 + 2SFF Models available



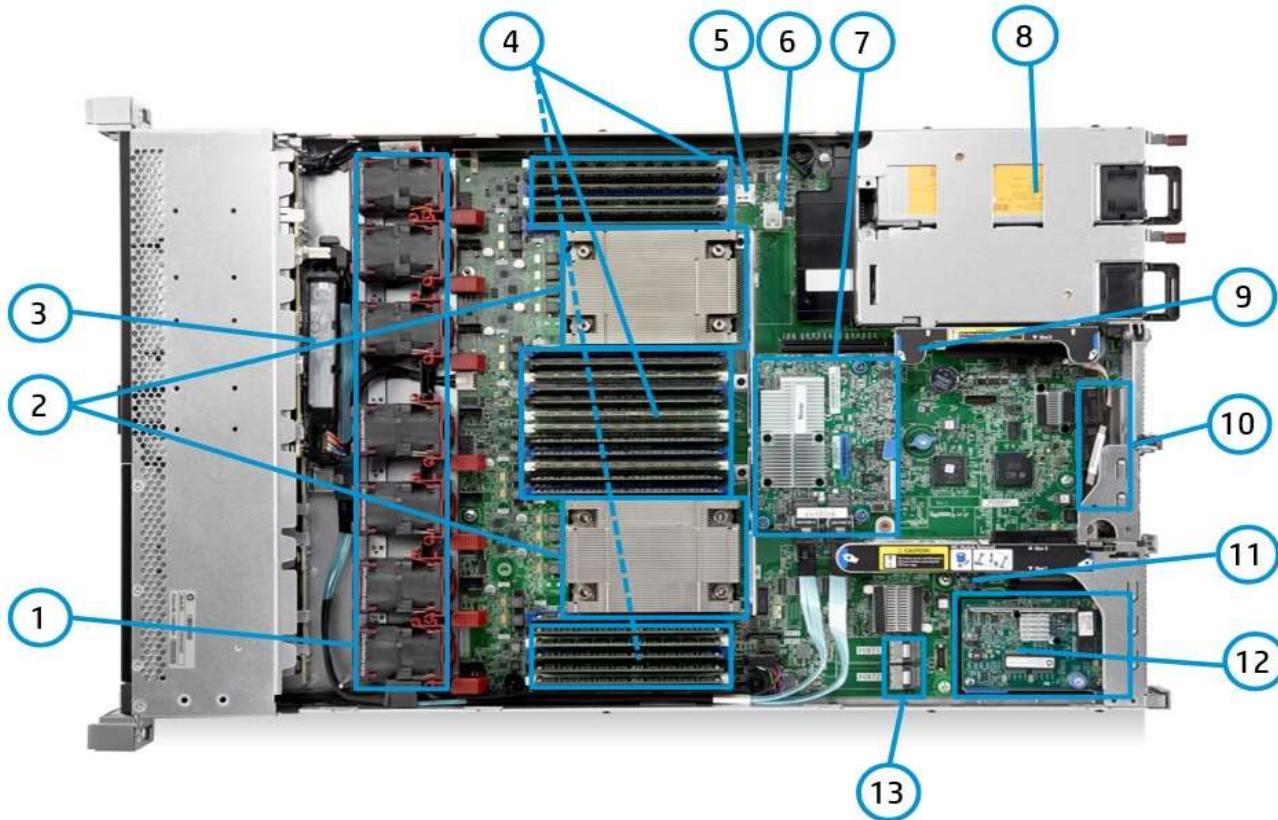
Rear view

1. PCIe 3.0 Slots 1-3
NOTE: Slot 1 and 2 Riser Ships Standard, Slot 3 Optional
1 FH / $\frac{3}{4}$ length and two Low Profile slots available
(shown) or two FH/ $\frac{3}{4}$ length slots.

Overview

2. HP Flexible Slot Power Supply Bay 2
3. Power Supply 2 Status LED
4. Power Supply 2 C13 Connection
5. HP Flexible Slot Power Supply Bay 1
6. Power Supply 1 Status LED
7. Power Supply 1 C13 Connection
8. Video Connector
9. Embedded 4 x 1GbE Network Adapter
10. Dedicated iLO 4 connector
11. Serial Port Connector (Optional)
12. USB 3.0 Connectors (2)
13. Unit Identification LED
14. FlexibleLOM bay (Optional)

NOTE: Shown: 4 x 1Gbe.



Internal View

1. 5 Standard Fans Ship for 1P and 7 Standard Fans Ship for 2P
NOTE: High Performance Fans also available as an option
2. 2 Processors with HP Smart Socket Guide
3. HP Smart Storage Battery (Optional)
4. 24 DDR4 DIMM slots(12 per processor)
5. MicroSD card slot
6. Dual Internal USB 3.0 connector
7. HP Flexible Smart Array or Smart HBA (Optional)
NOTE: H240ar Shown and P440ar available
8. 2 HP Flexible Slot Power supplies

Overview

9. Secondary CPU 2 PCIe 3.0 Riser (Optional and also a GPU version available)
10. Embedded 4x1Gbe NIC
11. Primary PCIe 3.0 riser for PCIe slots 1 & 2
12. FlexibleLOM Bay (Optional)
13. Embedded SATA Controller ports

Standard Features

NOTE: For more information regarding Intel Xeon processors, please see the following URL:
<http://www.intel.com/xeon>.

Intel® Xeon® processor E5-2600 v3 product family is designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness.

Processor	Model	CPU frequency	Cores	L3 Cache	Power	QPI	DDR4 Hz
	E5-2699v3	2.3GHz	18	45MB	145W	9.6GT/s	2133
	E5-2698v3	2.3GHz	16	40MB	135W	9.6GT/s	2133
	E5-2697v3	2.6GHz	14	35MB	145W	9.6GT/s	2133
	E5-2695v3	2.3GHz	14	35MB	120W	9.6GT/s	2133
	E5-2690v3	2.6GHz	12	30MB	135W	9.6GT/s	2133
	E5-2687Wv3	3.1GHz	10	25MB	160W	9.6GT/s	2133
	E5-2683v3	2.0GHz	14	35MB	120W	9.6GT/s	2133
	E5-2680v3	2.5GHz	12	30MB	120W	9.6GT/s	2133
	E5-2670v3	2.3GHz	12	30MB	120W	9.6GT/s	2133
	E5-2667v3	3.2GHz	8	20MB	135W	9.6GT/s	2133
	E5-2660v3	2.6GHz	10	25MB	105W	9.6GT/s	2133
	E5-2650v3	2.3GHz	10	25MB	105W	9.6GT/s	2133
	E5-2650Lv3	1.8GHz	12	30MB	65W	9.6GT/s	2133
	E5-2643v3	3.4GHz	6	20MB	135W	9.6GT/s	2133
	E5-2640v3	2.6GHz	8	20MB	90W	8.0GT/s	1866
	E5-2637v3	3.5GHz	4	15MB	135W	9.6GT/s	2133
	E5-2630v3	2.4GHz	8	20MB	85W	8.0GT/s	1866
	E5-2630Lv3	1.8GHz	8	20MB	55W	8.0GT/s	1866
	E5-2623v3	3.0GHz	4	10MB	105W	8.0GT/s	1866
	E5-2620v3	2.4GHz	6	15MB	85W	8.0GT/s	1866
	E5-2609v3	1.9GHz	6	15MB	85W	6.4GT/s	1600
	E5-2603v3	1.6GHz	6	15MB	85W	6.4GT/s	1600

Chipset	Intel® C610 Series Chipset Intel® E5-2600v3 Processor Family
NOTE: For more information regarding Intel® chipsets, please see the following URL: www.intel.com/products/server/chipsets/ .	

On System Management Chipset	HP iLO (Firmware HP iLO4 2.0) 4GB NAND NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in the iLO QuickSpecs.
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Memory	Type:
One of the following depending on Model	HP SmartMemory
	DDR4 Registered (RDIMM) or Load Reduced (LRDIMM)
DIMM Slots Available	24 (12 DIMM slots per processor, 4 channels per processor, 3 DIMMs per channel)
Maximum Capacity (LRDIMM)	1.5TB (24 x 64GB LRDIMM @2133MHz)
NOTE: 64GB LRDIMMs, feature support to be available early 2015	
Maximum Capacity (RDIMM)	384GB (24 x 16GB RDIMM @2133MHz)

Memory Protection	Advanced ECC	Advanced ECC uses single device data correction to detect and correct single and all multi-bit error that occurs within a single DRAM chip.
	Online spare	Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.

Standard Features

Expansion Slots

Primary Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	1	PCIe 3.0	x16	x16		Full Height, 3/4 Length (up to 9.5") Slot	Processor 1
	2	PCIe 3.0	x8	x8		Low profile slot	Processor 1

NOTE: Bus Width indicates the number of physical electrical lanes running to the connector.

Secondary Riser	Expansion Slots #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
	3	PCIe 3.0	x16	x16		Low Profile	Processor 2
	3	PCIe 3.0	x16	x16		Full Height, 3/4 Length (up to 9.5") Slot	Processor 2*

Storage Controller One of the following depending on Model	Entry Models	HP Dynamic Smart Array B140i Controller
	Base Models	HP H240ar Smart Host Bus Adapter
	Performance Models	HP Flexible Smart Array P440ar/2GB

Internal Storage Devices One of the following depending on Model	Optical Drives	8 SFF with optional Universal Media bay NOTE: Option Kit 764632-B21 VGA, USB 2.0, and DVD-RW kit.
		4 LFF NOTE: Two option kits available for optical drive: 726536-B21 or 726537-B21; Optical cable kit required for optical drives: 766203-B21.
	Hard Drives	None ship standard
	Hard Drive Bays	8 SFF with optional Universal Media bay 4 LFF 10 SFF; 8 SFF Model with optional 2 SFF SAS/SATA kit: 764630-B21 NOTE: HP ProLiant DL360 Series servers offer both SFF and LFF versions in CTO. NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HP SFF Gen8 Hard Drive Blank Kit or P/N 666986-B21: HP LFF Gen8 Hard Drive Blank Kit. These part numbers for single HDD blanks below are also provided should the customer require replacement HDD blanks for their server.

Maximum Internal Storage	CONFIGURATION		
		CAPACITY	
	Hot Plug SFF SAS SSD	16.0TB	10 x 1.6 TB
	Hot Plug SFF SATA SSD	8.0TB	10 x 800GB
	Hot Plug LFF SATA SSD	3.2TB	4 x 800GB (with optional LFF drive cage)
	Hot Plug LDD SAS SSD	6.4 TB	4 x 1.6TB (with optional LFF drive cage)
	Hot Plug SFF SAS	12.0TB	10 x 1.2TB
	Hot Plug SFF SATA	10.0TB	10 x 1TB
	Hot Plug LFF SAS	24.0TB	4 x 6TB (with optional LFF drive cage)
	Hot Plug LFF SATA	24.0TB	4 x 6TB (with optional LFF drive cage)

Power Supply One of the following depending on Model	HP 500W Flex Slot Platinum Hot Plug Power Supply
	HP 800W Flex Slot Platinum Hot Plug Power Supply
	HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply
	HP Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-less installation into HP ProLiant Gen9 Performance Servers. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for

Standard Features

specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the [ProLiant Power Cables](#) web page.

To review the power requirements for your selected system, please use the HP Power Advisor Tool located at www.hp.com/go/hppoweradvisor.

Power specifications and technical content for all HP Server power supplies can be found at www.hp.com/go/proliant/powersupply.

NOTE: Mixing of power supplies in the same server is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.

System Fans

One of the following depending on Model

1P model	Redundant 5 fans
2P model	Redundant 7 fans

NOTE: The second processor option kit contains two fans.

NOTE: High Performance Fan Kit, 766201-B21, is available to meet some extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are detailed at: <https://www.hp.com/servers/ashrae>.

Interfaces

Serial	1
NOTE: Optional kit: 764646-B21	
Video	1 rear (standard) 1 front (Optional)
Network RJ-45 (Ethernet)	Both the SFF and LFF Chassis have an embedded 4 x 1GB NIC and a FlexibleLOM bay. (See HP Networking section below for more details and options).
HP iLO Remote Management Network Port	1Gb Dedicated NAND Flash
SD Connector	1 micro SD Internal Secure
NOTE: The SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the server is powered.	
USB 3.0	5 total: 2 rear, 1 front, 2 internal

Operating Systems and Virtualization Software Support for ProLiant Servers

Microsoft Windows Server
Canonical Ubuntu
Red Hat Enterprise Linux (RHEL)
SUSE Linux Enterprise Server (SLES)
Oracle Solaris
VMware
Citrix XenServer

NOTE: For more information on HP's Certified and Supported ProLiant Servers for OS and Virtualization Software and latest listing of software drivers available for your server including how to purchase from HP, please visit our OS Support Site at: <http://www.hp.com/go/ossupport> and our driver download page.

Upgradeability

Upgradeable to two processors (36 Cores)
Up to 24 DIMM slots available for higher Memory capacity
Up to 10 SFF Hard Drive Bays; or 4 LFF Hard Drive Bays
FlexibleLOM slot for 1Gigabit or 10 Gigabit Ethernet or QDR/FDR InfiniBand networking options
3 PCIe 3.0 I/O slots for additional communications and storage expansion



Standard Features

NOTE: Slot 1 and 2 Riser Shipped Standard, Slot 3 Optional 1 FH / 3/4 length and two Low Profile slots available (shown) or two FH/ 3/4 length slots.

Redundant Power Supplies

Optical Drive supported via Universal Media Bay

NOTE: 8SFF Chassis via VGA, USB 2.0 and DVD-RW Option kit: 764732-B21; 4LFF Chassis via DVD-RW 726537-B21, DVD 726536-B21 and the Optical Cable: 766203-B21.

Industry Standard Compliance	ACPI 2.0b Compliant PCIe 3.0 Compliant PXE Support WOL Support Microsoft® Logo certifications USB 3.0 Support Energy Star ASHRAE A3/A4 NOTE: High Performance Fan Kit, 766201-B21, is available to meet some extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are detailed at: https://www.hp.com/servers/ashrae .
Graphics	Integrated Matrox G200 video standard <ul style="list-style-type: none">1280 x 1024 (32 bpp)1920 x 1200 (16 bpp)
HP Server UEFI/Legacy ROM	HP Server UEFI /Legacy ROM Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration while interacting with your server at boot time. HP ProLiant Gen9 platform defaults to UEFI and can be factory or field configured for Legacy BIOS Boot Mode. NOTE: The UEFI System Utilities function is analogous to the HP ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit http://www.hp.com/go/proliantuefi/docs . UEFI enables numerous new capabilities specific to HP ProLiant servers such as: <ul style="list-style-type: none">Secure BootOperating system specific functionalitySupport for > 2.2 TB (using GPT) boot drivesUSB 3.0 StackEmbedded UEFI ShellMass Configuration Deployment Tool using HP RESTful API.PXE boot support for IPv6 networksBoot support for option cards that only support a UEFI option ROM For more information please visit www.hp.com/go/proliant/uefi . NOTE: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI. NOTE: HP UEFI F10 Setting (758959-B22) can be selected to configure the system in Legacy mode in the factory.
Form Factor One of the following depending on Model	1U Rack form factor 8 SFF Drive Bay Version and 10 SFF Drive Bay Version: 1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 27.5" (69.85cm) Length 4 LFF Drive Bay Version: 1.7" (4.32cm) Height x 17.11" (43.47cm) Width x 29.5" (74.67cm) Length

Standard Features

Embedded Management	HP Integrated Lights-Out (HP iLO)	Monitor your servers for ongoing management, service alerting, reporting and remote management with iLO. Learn more at www.hp.com/go/ilo .
	UEFI	Configure and boot your servers securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at www.hp.com/go/ProLiant/uefi .
	HP RESTful API	RESTful API is an application programming interface. RESTful Web Service API served by iLO's web server. Learn more at www.hp.com/go/restfulapi .
	Intelligent Provisioning	Provision servers by discovering and deploying 1 to few servers with Intelligent Provisioning. Learn more at www.hp.com/go/intelligentprovisioning .
	Embedded Remote Support	HP's embedded remote support, used with Insight Online direct connect or HP Insight Remote Support, allows HP ProLiant servers to transmit hardware events directly to HP or an HP Authorized Partner for automated phone home support. Learn more at www.hp.com/go/insightonline/info .
Server utilities	HP Smart Update	Optimize firmware and driver updates with HP Smart Update solutions. Learn more at www.hp.com/go/smартupdate .
	HP Systems Insight Manager (HP SIM)	HP SIM allows you to monitor the health of your HP ProLiant Servers and HP Integrity Servers, and also provides you with basic support for non-HP servers. HP SIM also integrates with HP SUM to provide quick and seamless firmware updates. Learn more at www.hp.com/go/sim .
	Scripting Tool Kit and Windows PowerShell	Provision 1 to many servers using your own scripts to discover and deploy them with HP Scripting Tool Kit for Windows and Linux or HP Scripting Tools for Windows PowerShell. Learn more at www.hp.com/go/ProLiantSTK or www.hp.com/go/powershell .
	HP RESTful Interface Tool	HP RESTful Interface tool is a scripting tool to provision servers using RESTful API Interface to discover and deploy servers at scale. Learn more at www.hp.com/go/restfulapi .
	HP iLO Mobile Application	Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: www.hp.com/go/ilo/mobileapp .
	HP Insight Online	HP Insight Online, available at no additional cost as part of your HP warranty, Care Pack or contractual support agreement with HP, is a personalized dashboard for simplified tracking of IT operations and support information from anywhere, anytime. Learn more at www.hp.com/go/insightonline/info .
Security	Power-on password Keyboard password QuickLock, Network Server Mode Serial interface control Administrator's password iLO 4 (Integrated Lights-Out 4) has 12 customizable user accounts and SSL encryption iLO 4 can be disabled via a Global Setting iLO Advanced supports directory services integration TPM 1.2 UEFI	
Warranty	This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to	

Standard Features

warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

Optional Features

Server Management	HP Insight Control	HP Insight Control, lets you deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For more information, see http://www.hp.com/go/insightcontrol .
	HP OneView	Powerful converged management of servers, storage, and network for IT service automation and infrastructure simplicity, see www.hp.com/go/oneview . NOTE: HP OneView support for HP ProLiant Gen9 rack (DL) and blade (BL) servers will be available with HP OneView 1.20 in Dec 2014. Customers may purchase HP OneView licenses now, and will be granted rights to use HP Insight Control software and transition to HP OneView with a free upgrade, when available. Customers also have the option to purchase HP Insight Control.
	HP Insight Cluster Management Utility (CMU)	HP Insight Cluster Management Utility is a hyperscale-optimized management framework that includes software for the provisioning, control, performance management and monitoring of groups of nodes and infrastructure. Learn more at www.hp.com/go/cmu .
Rack and Power Infrastructure		HP Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HP Rack and Power infrastructure solutions – rack infrastructure, power protection and management, performance optimized data centers (PODs) – are the foundation you are looking for to help secure your long-term IT success. These products are designed to help you react to changes in the industry. They deliver efficient, easy-to-use capabilities to manage, monitor, deploy and provision infrastructure from entry to enterprise. As an industry leader, HP is uniquely positioned to address the key concerns of power, cooling, cable management and system access. Learn more at HP Rack and Power Infrastructure .
High Performance Clusters	HP Insight Cluster Management Utility (CMU)	HP Insight Cluster Management Utility is a Hyperscale management framework that includes software for the centralized provisioning, management and monitoring of nodes and infrastructure. Learn more at www.hp.com/go/cmu .
HPC Interconnects		NOTE: High Performance Computing (HPC) interconnect technologies are available for this server under the HP Cluster Platform product portfolio. These high-speed interconnects are fully supported by HP when they are part of these configure to order clusters. Solutions can be defined with a lot of flexibility with the help of configuration tools. Please visit the following URL to configure HPC Clusters with InfiniBand Interconnects: http://www.hp.com/techservers/clusters/ucp/index.html .
Storage Software		Whether you need to solve a specific data protection, archiving, or storage command and control challenge, or deliver on strategic consolidation, compliance, or continuity initiatives, look no further than HP storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities. Storage software that gets the job done: <ul style="list-style-type: none">Data Protection and Recovery Software Whether you're a large enterprise or a smaller business, HP data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.Data Archive and Migration Software HP's storage software enables you to comply with data retention and retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.Storage Resource Management Software (SRM) HP's storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.Data Replication Software HP offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.Storage Device Management Software Maximize your investment in HP storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.

Optional Features

- **HP StoreVirtual VSA**

With HP StoreVirtual VSA you can use the power of virtualization to create a virtual array within your host server. Manage it as a single pool of shared storage capacity, and scale it to match your evolving needs. HP ProLiant Gen9 servers include a 3-year limited license for HP StoreVirtual VSA software with 1TB of capacity at no extra cost. Simply select to install HP StoreVirtual VSA software during server setup within Intelligent Provisioning. More information, instructional videos, and free console management software are available at www.hp.com/go/vsa1TB.

NOTE: For more information about Storage Software including QuickSpecs, please see:
www.hp.com/go/storage/software.

One Config Simple (SCE)

SCE is a guided self service tool to help sales and non technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact HP's Customer Business Center or an Authorized Partner for assistance. <http://www.hp.com/products/configurator>.

Service and Support

HP Technology Services	HP Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HP to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.
Protect your business beyond warranty with HP Care Pack Services	HP Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new server, giving you full entitlement for the term you select.
Optimized Support recommendation	HP Proactive Care - Call to Repair commitment, 24x7 coverage, three year Care Pack Service Prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HP. Includes enhanced escalation management and the industry's highest level of hardware support commitment – hardware will be returned to operating conditions within six (6) hours after you open your case. Comes with collaborative software call management with two hour call back to reduce troubleshooting.
	As a leading global support provider for Microsoft, Red Hat, VMware, SUSE and other operating systems, HP is able to simplify and shorten your time to resolution with one call for hardware or software questions. http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf .
	HP ProLiant Server Hardware Installation Help ensure your new HP ProLiant hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf .
Standard Support recommendation	HP Proactive Care - 24x7 coverage, three year Care Pack Service This service helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HP. Includes four hour response for hardware, and collaborative call management for software with a two hour callback. http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf .
	HP ProLiant Hardware Installation Help ensure your new HP ProLiant hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf .
Related Services	Data Center Platform Consulting Services These services help modernize key systems and leverage new technology to support a changing business climate and prepare you for the new style of IT. HP understands the needs of the data center of the future and will serve as your guide for the journey. www.hp.com/services/consulting
	Data Privacy Services Protect your data through better media management. HP Data privacy services help manage and protect sensitive data. www.hp.com/services/dataprivacy
	Factory Express for Servers and storage HP Factory Express offers configuration, customization, integration and deployment services for HP servers and storage products. Choose how your factory solutions are built, tested, integrated, shipped and deployed. http://www.hp.com/go/factory-express .
	HP Foundation Care Hardware and software support services provide easy connection to HP to resolve support issues quickly. Includes collaborative call management for industry leading software; full software support may also be purchased, giving you one place to call for help. www.hp.com/services/foundationcare .
	Additional HP Care Pack services can be found at: www.hp.com/go/cpc .
Parts and Materials	HP will provide HP-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Service and Support

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HP due to malfunction.

Pre-configured Models

For the Standard Features shipped in the "Factory Integrated Models", please see the "Configuration Information - Factory Integrated Models" section.
 1. Pre-configured models ship with the configurations below. Options can be selected from the Core or Additional options section of this QuickSpecs.
 2. HP does not allow factory integration of options into pre-configured models. Any additional options purchased will be shipped separately.
 3. If you desire a custom configuration please see "Configuration Information - Factory Integrated Models" section of this QuickSpecs.
 4. Not all models are available in all regions. Check with your local country HP offices for availability.

NOTE: All Pre-configured Models come populated with some hard drive blanks installed. Should the customer need additional hard drive blanks, they can order more using either P/N 666987-B21: HP SFF Hard Drive Blank Kit or P/N 666986-B21: HP LFF Hard Drive Blank Kit.

NOTE: All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (AOK02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the [ProLiant Power Cables](#) web page.

Caution: HP recommends that a minimum of two people are required for all Rack Server installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

	Entry Models		Base Models		
[SKU Number]	755260-B21	755261-B21	755262-B21		
Model Name	HP ProLiant DL360 Gen9 E5-2603v3 1P 8GB-R B140i 500W PS Entry SATA Server	HP ProLiant DL360 Gen9 E5-2603v3 1P 8GB-R H240ar 500W PS Entry SAS Server	HP ProLiant DL360 Gen9 E5-2630v3 1P 16GB-R P440ar 500W PS Base SAS Server		
Processor	Intel® Xeon® E5-2603v3		Intel® Xeon® E5-2630v3		
Number of Processors	One				
Memory	8GB (1x8GB Registered DIMMs, 2133 MHz) NOTE: The DIMM will operate at 1600 MHz and 1866 MHz with the E5-2603v3 Processor.		16GB (1x16GB Registered DIMMs, 2133 MHz)		
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter				
Storage Controller	HP Dynamic Smart Array B140i	HP H240ar Smart Host Bus Adapter	HP Flexible Smart Array P440ar/2GB		
Hard Drive	None ship standard NOTE: Only Supports SATA HDD unless HP Smart HBA or HP Smart Array Controller is added.	None ship standard			
Internal Storage	8 SFF HDD Bays				
Optical Drive Bay	Optional via Universal Media Bay				
PCI-Express Slots	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0				
Power Supply	(1) HP 500W Flex Slot Platinum Power Supply				
Fans	5 Standard hot plug fans, redundant				
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HP OneView (optional)				
Form Factor	Rack (1U), HP Easy Install Rails				
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response				

	Performance Models
[SKU Number]	755263-B21
Model Name	HP ProLiant DL360 Gen9 E5-2650v3 2P 32GB-R P440ar 800W RPS Performance SAS Server
Processor	Intel® Xeon® E5-2650v3
Number of Processors	Two
Memory	32GB (2x16GB Registered DIMMs, 2133 MHz)
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter
Storage Controller	HP Flexible Smart Array P440ar/2GB
Hard Drive	None ship standard
Internal Storage	8 SFF HDD Bays
Optical Drive Bay	Optional via Universal Media Bay
PCI-Express Slots	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0



Pre-configured Models

Power Supply	(2) HP 800W Flex Slot Platinum Power Supply
Fans	7 standard hot plug fans, redundant
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (standard), HP OneView (optional)
Form Factor	Rack (1U), HP Easy Install Rails
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response

Smart Buys

[SKU Number]	780017-S01	780018-S01	780019-S01	780020-S01		
Model Name	HP ProLiant DL360 Gen9 E5-2609v3 1P 8GB-R H240ar 500W PS Server/S-Buy	HP ProLiant DL360 Gen9 E5-2620v3 1P 16GB-R H240ar 2x500W PS Server/S-Buy	HP ProLiant DL360 Gen9 E5-2640v3 2P 16GB-R P440ar 500W RPS Server/S-Buy	HP ProLiant DL360 Gen9 E5-2660v3 1P 16GB-R P440ar 800W RPS Server/S-Buy		
Processor	Intel® Xeon® E5-2609v3	Intel® Xeon® E5-2620v3	Intel® Xeon® E5-2640v3	Intel® Xeon® E5-2660v3		
Number of Processors	One		Two	One		
Memory	8GB (1x8GB Registered DIMMs, 2133 MHz) Note: The DIMM will operate at 1600MHz with the E5-2609v3 Processor.	16GB (2x8 GB Registered DIMMs, 2133 MHz) Note: The DIMM will operate at 1866MHz with the E5-2620v3 Processor.		16GB (1x16 GB Registered DIMMs, 2133 MHz)		
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter					
Storage Controller	HP H240ar Smart Host Bus Adapter		HP Flexible Smart Array P440ar/2GB			
Hard Drive	None ship standard					
Internal Storage	8 SFF HDD Bays					
Optical Drive Bay	Optional via Universal Media Bay					
PCI-Express Slots	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0		3 Standard (1-FH/HL, 2-LP) PCIe 3.0	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0		
Power Supply	(1) HP 500W Flex Slot Platinum Power Supply	(2) HP 500W Flex Slot Platinum Power Supply		(2) HP 800W Flex Slot Platinum Power Supply		
Fans	5 standard hot plug fans, redundant		7 standard hot plug fans, redundant	5 standard hot plug fans, redundant		
Management	iLO Management (standard)					
Form Factor	Rack (1U), HP Easy Install Rails					
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response					

[SKU Number]	780021-S01	780022-S01	784657-S01
Model Name	HP ProLiant DL360 Gen9 E5-2690v3 1P 32GB-R P440ar 800W RPS Server/S-Buy	HP ProLiant DL360 Gen9 E5-2670v3 2P 64GB-R P440ar 800W RPS Server/S-Buy	HP ProLiant DL360 Gen9 E5-2680v3 2P 64GB-R P440ar 500W RPS Server/S-Buy
Processor	Intel® Xeon® E5-2690v3	Intel® Xeon® E5-2670v3	Intel® Xeon® E5-2680v3
Number of Processors	One	Two	Two
Memory	32GB (2x16 GB Registered DIMMs, 2133 MHz)	64GB (4x16 GB Registered DIMMs, 2133 MHz)	
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter plus HP FlexFabric 10Gb 2-port 533FLR-T Adapter		HP Embedded 1Gb Ethernet 4-port 331i Adapter
Storage Controller	HP Flexible Smart Array P440ar/2GB		
Hard Drive	None ship standard		Includes 2x80GB 6G SATA VE SC EB SSD Drives
Internal Storage	8 SFF HDD Bays		
Optical Drive Bay	Optional via Universal Media Bay		
PCI-Express Slots	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0	3 Standard (1-FH/¾ L, 2-LP) PCIe 3.0	2 Standard (1-FH/¾ L, 1-LP) PCIe 3.0
Power Supply	(2) HP 800W Flex Slot Platinum Power Supply		(2) HP 500W Flex Slot Platinum Power Supply
Fans	5 standard hot plug fans, redundant	7 standard hot plug fans, redundant	
Management	iLO Management (standard)		iLO Management (standard); Includes iLO Advanced License
Form Factor	Rack (1U), HP Easy Install Rails		
Warranty	Server Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response		

Configuration Information - Factory Integrated Models

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

1. Factory Integrated Models must start with a CTO Server.
2. FIO indicates that this option is only available as a factory installable option.
3. All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.
4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

[Chassis]	HP ProLiant DL360 Gen9 4LFF Configure-to-order Server	HP ProLiant DL360 Gen9 8SFF Configure-to-order Server
SKU Number	755259-B21	755258-B21
Processor	2 (optional) x HP Smart Socket Guides	
DIMMSlots	24 DIMM slots for RDIMM, LRDIMM DDR4 Memory	
Storage Controller	HP Dynamic Smart Array B140i	
PCIe	2 PCIe 3.0 Slots: Slot 1, FH / 3/4 Length; Slot 2, Low Profile	
Drive Cage	4LFF Hot Plug	8SFF Hot Plug
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter	
Fans	5 Standard hot plug fans, redundant	
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HP OneView (optional)	
USB	1 front, 2 internal, 2 rear	
Ears	HP Quick Release Ears	

NOTE: This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

NOTE: Factory Integrated Models must start with a CTO Server.

NOTE: FIO indicates that this option is only available as a factory installable option.

NOTE: All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the server.

NOTE: 4LFF CTO Chassis includes 1 SATA Cable, option kit: 766213-B21, which attaches to the B140i controller

NOTE: 8SFF CTO Chassis includes two 4 x Mini-SAS Cables, option kit: 766209-B21, which attaches to an optional HP Smart HBA H240ar or HP Smart Array P440ar controller.

Step 2: Choose Required Options (one of the following from each list unless otherwise noted)

HP Processors

Entry Processors - E5-2600v3 series Processors

HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) FIO Processor Kit	755374-L21
HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) FIO Processor Kit	755378-L21

Base Processors - E5-2600v3 series Processors

HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit	755382-L21
HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) FIO Processor Kit	755376-L21
HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit	755384-L21
HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) FIO Processor Kit	755404-L21
HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit	755386-L21
HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit	764097-L21

Performance Processors - E5-2600v3 series Processors

HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO Processor Kit	755406-L21
HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit	755388-L21
HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit	755390-L21
HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit	755408-L21
HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit	755392-L21



Configuration Information - Factory Integrated Models

HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit	755394-L21
HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit	755398-L21
HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit	755396-L21
HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) FIO Processor Kit	755400-L21
HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) FIO Processor Kit	755402-L21
HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO Processor Kit	764099-L21
HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) FIO Processor Kit	780003-L21
HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit	764101-L21
HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) FIO Processor Kit	755410-L21

NOTE: If two processors are desired, select one xxxxx-L21 and one xxxxx-B21.

NOTE: Up to 2 processors are supported. Mixing different processor models is not supported.

NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.

NOTE: For the Intel® C610 Chipset E5-2600 Series, the letter preceding the model number indicates the Product Line (E3, E5, E7); 2600x v#, 2 = number of CPUs in a Node, 4 is socket/segment designation, 00 = Processor SKU, x = L for low power SKUs and v# (not yet designated) = version number.

HP Memory

Registered DIMMs (RDIMMs) for E5-2600v3 Series

HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21

Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series

HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21
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NOTE: Select one or more memory kits from list above.

NOTE: LRDIMM, RDIMM are all distinct memory technologies and cannot be mixed within a server. The majority of ProLiant Gen9 servers support LRDIMM and RDIMM.

NOTE: HP memory from previous generation servers are not qualified or warranted with this HP ProLiant Server. HP SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen9.

NOTE: If only one processor is installed, only half of the total DIMM slots are available. When populating with two processors all DIMM slots are available.

NOTE: Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: www.hp.com/go/proliant-energy-efficient.

NOTE: Depending on the memory configuration and processor model, the memory speed may run at 2133MHz, 1866MHz, 1600MHz or 1333MHz. Please see Memory Population Table or the Online Memory Configuration Tool at: www.hp.com/go/ddr4memory-configurator

HP Power Supplies

NOTE: Mixing of power supplies in the same server is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.

NOTE: Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HP Power Advisor tool to determine the right size power supply for your server configuration. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor.

HP Flex Slot Platinum Hot-plug Power supplies

HP 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
HP 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21

Step 3: Choose Additional Factory Integratable Options (one of the following from each list unless otherwise noted)

Embedded B140i Settings

HP FIO Enable Kit Hamer BIOS Setting	784308-B21
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NOTE: This part enables the embedded B140i controller for RAID and Hot-plug capabilities

HP Legacy FIO Mode Setting	758959-B22
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Configuration Information - Factory Integrated Models

NOTE: UEFI is the default, this part can be used to enable Legacy mode. If Legacy FIO Mode Setting is selected, then the embedded B140i will no longer be a primary controller and an HP Storage Controller must be selected.

HP Storage Controllers	SAS Controllers	
	HP Smart Array Controllers	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller	749974-B21
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller	761872-B21
	HP Host Bus Adapter	
	HP H240ar 12Gb 1-port Int FIO Smart Host Bus Adapter	749976-B21
Embedded Management	HP iLO Advanced	
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License	C6N36ABE
HP Converged Infrastructure Management Software	HP OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic	E5Y43A

Step 4: Choose Additional Options for Factory Integration from Core and Additional Options sections below.

Core Options

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for additional information.

HP Unique Options	HP DL360 Gen9 2SFF SAS/SATA Universal Media Bay Kit	764630-B21
	NOTE: Required when upgrading an 8SFF model to a 10SFF model, not supported in 4LFF CTO Server; when this option kit is installed it cannot be used in conjunction with the optical drive or USB2.0 /VGA option kits.	
	HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit	764632-B21
	NOTE: DVD RW, USB 2.0, and VGA; when this option kit is installed it cannot be used in conjunction with the 2 SFF SAS/SATA option kit.	
	HP DL360 Gen9 SFF USB/VGA Universal Media Bay Kit	764634-B21
	NOTE: Front USB 2.0 and VGA, when this option kit is installed it cannot be used in conjunction with the 2 SFF SAS/SATA option kit.	
	HP DL360 Gen9 Location Discovery Services Ear Kit	764757-B21
	HP DL360 Gen9 Serial Cable	764646-B21
	HP DL360 Gen9 SFF Systems Insight Display Kit	764636-B21
	HP DL360 Gen9 LFF USB/VGA Kit	764638-B21
	NOTE: Front USB 2.0 VGA Kit.	
	HP DL360 Gen9 LFF Systems Insight Display Kit	764640-B21
	NOTE: Options noted with "DL360 Gen9 SFF..." are options only compatible with the 8 SFF Models; and Options noted with "DL360 Gen9 LFF..." are options only compatible with the 4LFF Models.	

HP Processors	Entry Processors - E5-2600v3 series Processors	
	HP DL360 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	755374-B21
	HP DL360 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit	755378-B21
	Base Processors - E5-2600v3 series Processors	
	HP DL360 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit	755382-B21
	HP DL360 Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit	755376-B21
	HP DL360 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit	755384-B21
	HP DL360 Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit	755404-B21
	HP DL360 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit	755386-B21
	HP DL360 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) Processor Kit	764097-B21
	Performance Processors - E5-2600v3 series Processors	
	HP DL360 Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit	755406-B21
	HP DL360 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit	755388-B21
	HP DL360 Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit	755390-B21
	HP DL360 Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit	755408-B21
	HP DL360 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit	755392-B21
	HP DL360 Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit	755394-B21
	HP DL360 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit	755398-B21
	HP DL360 Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit	755396-B21
	HP DL360 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) Processor Kit	755400-B21
	HP DL360 Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit	755402-B21
	HP DL360 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit	764099-B21
	HP DL360 Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) Processor Kit	780003-B21
	HP DL360 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit	764101-B21
	HP DL360 Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) Processor Kit	755410-B21
	NOTE: xxxxx-B21 processor option kits include 1 heat sink and two additional fans for 2P configs.	

HP Memory	Registered DIMMs (RDIMMs) for E5-2600v3 Series	
	HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21
	HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
	Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series	



Core Options

HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21
NOTE: Memory speeds will vary by processor model, please see memory section of QuickSpecs.	

HP Optical Drives	HP 9.5mm SATA DVD-ROM JackBlack Gen9 Optical Drive	726536-B21
NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21.		
	HP 9.5mm SATA DVD-RW JackBlack G9 Optical Drive	726537-B21
NOTE: Supported only with the 4LFF Models & requires cable kit 766203-B21.		
	HP DL360 Gen9 SFF DVD/USB Universal Media Bay Kit	764632-B21
NOTE: Front DVD-RW, USB 2.0 and VGA, and optical cable.		
	HP Mobile USB Non Leaded System DVD RW Drive	701498-B21

HP Drives	SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives	
	HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive	718162-B21
	HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21
	HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
	HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21
	HP 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
	HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
	HP 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
	HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
	HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21
	SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
	HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652749-B21
	HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652745-B21
	SAS Hot Plug LFF (3.5-inch) Enterprise (ENT) Drives	
	HP 600GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	765424-B21
	HP 450GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737394-B21
	HP 300GB 12G SAS 15K rpm LFF (3.5-inch) SC Converter Enterprise 3yr Warranty Hard Drive	737261-B21
	SAS Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
	HP 6TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	761477-B21
	HP 4TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	695510-B21
	HP 3TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652766-B21
	HP 2TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652757-B21
	HP 1TB 6G SAS 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	652753-B21
	SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives	
	HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21
	HP 500GB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655708-B21
	SATA Hot Plug LFF (3.5-inch) Midline (MDL) Drives	
	HP 6TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	753874-B21
	HP 4TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	693687-B21
	HP 3TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	628061-B21
	HP 2TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658079-B21
	HP 1TB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	657750-B21
	HP 500GB 6G SATA 7.2K rpm LFF (3.5-inch) SC Midline 1yr Warranty Hard Drive	658071-B21
	12G SAS Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives	
	HP 800GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741159-B21
	HP 400GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741155-B21

Core Options

HP 200GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741151-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	741146-B21
HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	741142-B21
HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	741138-B21
12G SAS Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762263-B21
HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762261-B21
12G SAS Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 1.6TB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762272-B21
HP 800GB 12G SAS Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	762270-B21
6G SATA Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691868-B21
HP 400GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691866-B21
HP 200GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691864-B21
HP 100GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691862-B21
6G SATA Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives	
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21
HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739898-B21
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 300GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739888-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717969-B21
6G SATA Hot Plug SFF Value Endurance (2.5-inch) Enterprise Value G1 Solid State Drives	
HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive	756657-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive	756636-B21
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty G1 Solid State Drive	756621-B21
6G SATA Hot Plug SFF (2.5-inch) Enterprise Light G1 Solid State Drives	
HP 960GB 6G SATA Light Endurance SFF 2.5-in SC Enterprise Light 3yr Wty G1 Solid State Drive	756601-B21
6G SATA Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21
6G SATA Hot Plug LFF (3.5-inch) Enterprise Mainstream Solid State Drives	
HP 800GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691860-B21

Core Options

HP 400GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691856-B21
HP 200GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691854-B21
HP 100GB 6G SATA Mainstream Endurance LFF 3.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691852-B21
6G SATA Hot Plug LFF Value Endurance (3.5-inch) Converter Enterprise Value G1 Solid State Drives	
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756660-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756639-B21
HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Converter ENT Value 3yr Wty G1 Solid State Drive	756624-B21
6G SATA Hot Plug LFF (3.5-inch) Enterprise Value Solid State Drives	
HP 800GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718189-B21
HP 600GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	739900-B21
HP 480GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718183-B21
HP 300GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	739890-B21
HP 240GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Value 3yr Wty Solid State Drive	718177-B21
6G SATA Hot Plug LFF (3.5-inch) Enterprise Light G1 Solid State Drives	
HP 960GB 6G SATA Light Endurance LFF 3.5-in SC Enterprise Light 3yr Wty G1 Solid State Drive	756604-B21
6G SATA Hot Plug LFF (3.5-inch) Enterprise Boot Solid State Drives	
HP 120GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	718171-B21
HP 80GB 6G SATA Value Endurance LFF 3.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734362-B21
Hard Drive Blank Kits	
HP Large Form Factor Hard Drive Blank Kit	666986-B21
HP Small Form Factor Hard Drive Blank Kit	666987-B21
Hard Drive Kits	
HP DL360 Gen9 2SFF SAS/SATA Universal Media Bay Kit	764630-B21
NOTE: Not supported in the 4LFF Chassis, required for 10SFF config, when added to the 8SFF Chassis.	

HP Networking

1 Gigabit Ethernet adapters	
HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
10 Gigabit Ethernet adapters	
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21
HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
NOTE: A minimum of two Gigabytes (2 GB) of server memory is required per each adapter.	
NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. See cables/options below.	
FlexibleLOM Adapters	
HP FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21

Core Options

HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21
HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter	727060-B21
HP Ethernet 10Gb 2-port 561FLR-T Adapter	700699-B21
HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B22
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	665243-B21
HP Ethernet 1Gb 4-port 366FLR Adapter	665240-B21

NOTE: For the following FlexibleLOM Network Adapters, only 1 FlexibleLOM can be added to the server, which is selected in Step 2 of the "Configuration Information - Factory Integrated Models" section. These options are for upgrade or change from original configuration after the server is shipped.

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs.

HP InfiniBand	HP InfiniBand FDR 2-port 545QSFP Adapter	702211-B21
NOTE: Please see the QuickSpecs for additional information: http://h18000.www1.hp.com/products/quickspecs/13078_na/13078_na.html .		

HP I/O Expansion Options	HP DL360 Gen9 Low Profile PCIe Slot CPU2 Kit	764642-B21
NOTE: after installation sever will have 1 FH / ¾ Length, and 2 Low Profile PCIe 3.0 Slots, requires second CPU.		
	HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit	764644-B21
NOTE: after installation the server will have 2 FH / ¾ Length PCIe 3.0 Slots, requires second CPU.		
NOTE: Includes GPU power cable and bracket; when this option kit is installed the Low Profile PCIe3.0 riser is not useable.		

HP Power Supplies	NOTE: Mixing of power supplies in the same server is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your server.	
NOTE: Prior to selecting a power supply option, it is highly recommended that you review your server configuration in the HP Power Advisor tool to determine the right size power supply for your server configuration. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor .		
HP Flex Slot Platinum Hot-plug Power supplies		
	HP 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
	HP 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21
	HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21

HP Computation and Graphics Accelerators	HP NVIDIA Quadro K4200 Graphics Accelerator	J0G90A
NOTE: HP DL360 Gen9 supports up to two K4200 GPU cards. A single K4200 card installed in the primary PCI-e slot requires the Gen9 GPU Cable for CPU1 Kit 766199-B21. Two cards installed in the both the primary and secondary PCI-e slots require an HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit 764644-B21, and if the HDD need to be RAIDed, the HP Smart Array P440ar for two GPUS needs to be installed, option kit 726740-B21		
HP NVIDIA Quadro K2200 Graphics Accelerator		
	NOTE: Supports up to two cards. Two cards installed in the both the primary and secondary PCI-e slots require an HP DL360 Gen9 Full Height PCIe Slot CPU2 Kit 764644-B21. If two K2200 GPU cards are installed it does not require HP Smart Array P440ar for two GPU option kits for RAIDed HDDs.	J0G89A
HP DL360 Gen9 GPU Cable for CPU1 Kit		
NOTE: Includes GPU power cable and brackets		
NOTE: Only the above listed Graphics cards are HP standard supported options in this server.		
NOTE: The NVIDIA Quadro modules are supported only on 64-bit versions of Linux and Windows operating systems as well as on Virtual Machine client operating systems. The supported bare metal operating systems are RHEL6, SLES 11 and Windows Server 2012 R2.		

HP Cooling Options	HP DL360 Gen9 High Performance Fan Kit	766201-B21
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Core Options

NOTE: High Performance Fan Kit, is available to meet some extended ambient operating temperatures above 35° C. Qualifications for extended ambient configurations are detailed at: <https://www.hp.com/servers/ashrae>.

Additional Options

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configuration. Contact your local sales representative for additional information.

HP Insight Software	HP Insight Control		
	HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	C6N27A	
	HP Insight Control including 1yr 24x7 Technical Support and Updates Electronic License	C6N28ABE	
	HP Insight Control Server Provisioning Media Kit	BD883A	
	HP Insight Management Media Kit	C6N31A	
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.		
	NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.		
	NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates .		
	NOTE: For additional license options please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_na/12631_na.html .		

Embedded Management	HP iLO Advanced		
	HP iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE	
	HP iLO Advanced 1 Server License with 3yr 24x7 Tech Support and Updates	BD505A	
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License	512485-B21	
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A	
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License	C6N36ABE	
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE	
	HP iLO Advanced Electronic License with 3yr 24x7 Tech Support and Updates	BD506AAE	
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Electronic License	TA850AAE	

HP Converged Infrastructure Management Software	HP OneView		
	HP OneView incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y34A	
	HP OneView Media Kit Phys No Lic	E5Y37A	
	HP OneView incl 3yr 24x7 Supp Flex Qty E-LTU	E5Y35AAE	
	HP OneView incl 3yr 24x7 Supp Bundle 1 Svr E-LTU	E5Y43AAE	
	HP OneView for ProLiant DL Server incl 3yr 24x7 Supp FIO Bundle Physical 1 Svr Lic	E5Y43A	
	HP OneView w/o iLO Adv incl 3yr 24x7 Supp Phys 1 Svr Lic	E5Y38A	
	HP OneView w/o iLO Adv inc 3yr 24x7 Supp Flex Qty E-LTU	E5Y39AAE	

High Performance Clusters	HP Cluster Management Utility		
	HP Insight Cluster Management Utility 1yr 24x7 Flexible License	QL803B	
	HP Insight Cluster Management Utility 3yr 24x7 Flexible License	BD476A	
	NOTE: These part numbers can be used to purchase one certificate for multiple licenses and support with a single activation key. Each license is for one node (server). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key. Customer also will receive a support agreement.		
	HP Insight Cluster Management Utility Media	BD477A	
	NOTE: For additional license kits please see the QuickSpecs at: http://h18004.www1.hp.com/products/quickspecs/12612_na/12612_na.html .		

HP Security	HP 1U Security Bezel Kit	664918-B21
	HP Trusted Platform Module Option	488069-B21



Additional Options

NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the server platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in Windows Server® 2008. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module (TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a server running Windows Server 2008 has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: www.hp.com/go/TPM.

NOTE: ProLiant OS pre-installed units will come with the partition required for TPM deployment.

NOTE: The TPM key is unique to every TPM deployed server and must be retained. Misplacing or losing the key could result in data loss.

HP Storage Controllers	SAS Controllers	
	HP Smart Array Controllers	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller	726736-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot	
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller	749974-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot	
	HP DL360 Gen9 Smart Array P840 SAS Card with Cable Kit	766205-B21
	NOTE: Includes the P840 Smart Array controller with 4GB integrated cache, HP Smart Storage Battery, and associated cabling to attach it to a 10SFF chassis configuration	
	HP Smart Array P440ar/2GB FBWC 12Gb 1-port Int SAS Controller for DL360 Gen9	726740-B21
	NOTE: This controller is specific for the DL360 Gen9 with 2 GPUs installed. It has a unique heatsink that will allow the 2 nd GPU to fit.	
	HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller	726825-B21
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller	726821-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives, consumes 1 PCIe slot	
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller	761872-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives, consumes 1 PCIe slot	
	NOTE: Includes the HP Smart Storage Battery	
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller	726897-B21
	NOTE: When ordering controllers, please reference the HP Cable Options below for the required cable.	
	NOTE: FIO indicates factory integrated option via CTO.	
	HP Smart Host Bus Adapters	
	HP H240ar 12Gb 1-port Int Smart Host Bus Adapter	726757-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot	
	HP H240ar 12Gb 1-port Int FIO Smart Host Bus Adapter	749976-B21
	NOTE: Provides support for up to 8 internal SAS/SATA drives without using a PCIe slot	
	NOTE: FIO indicates factory integrated option via CTO.	
	HP Cable Options	
	HP DL360 Gen9 LFF Smart Array P440ar/H240ar SAS Cable	766211-B21
	NOTE: Required for an upgrade from a B140i SATA controller to a HP Smart HBA 240ar or HP Smart Array P440ar.	
	HP DL360 Gen9 SFF Embedded SATA Cable	766207-B21
	NOTE: Needed only when attaching drive bays to the B140i controller in a 8 SFF Chassis	
	HP DL360 Gen9 SFF Internal SAS Cable	775927-B21
	NOTE: Required for use with the HP Smart Array P440 (PCIe Controllers) 726821-B21 or 761872-B21, the option kit documentation details out cable placement with the HP Smart Array P440 in PCIe 3.0 Slots 1 or 2 connecting to the 8SFF backplane or the 2 SFF SAS/SATA option kit.	
	HP DL360 Gen9 LFF Internal SAS Cable	775929-B21
	NOTE: Required for use with the HP Smart Array P440 (PCIe Controllers) 726821-B21 or 761872-B21, the option kit documentation details out cable placement with the HP Smart Array P440 in PCIe 3.0 Slots 1 or 2 connecting to the 4LFF backplane.	

Additional Options

NOTE: Options noted with "DL360 Gen9 SFF..." are options only compatible with the 8 SFF Chassis; and Options noted with "DL360 Gen9 LFF..." are options only compatible with the 4LFF Chassis.

Optional Upgrades

HP 96W Smart Storage Battery with 145mm Cable for DL/ML/SL Servers

727258-B21

HP Tape Backup **NOTE:** For the complete range of tape drives, autoloaders, libraries and media see: <http://www.hp.com/go/tape>. For hardware and software compatibility of HP tape backup products see: <http://www.hp.com/storage/SPOCK> and www.hp.com/go/ebss.

Tape Drives

HP StoreEver LTO-6 Ultrium 6650 SAS External Tape Drive	EH964A
HP StoreEver 1/8 G2 LTO-6 Ultrium 6250 FC Tape Autoloader	COH19A
HP StoreEver LTO-6 Ultrium 6250 Tape Drive in 1U Rack-mount Kit	COL99A
HP StoreEver LTO-4 Ultrium 1760 SAS External Tape Drive	EH920B
HP StoreEver LTO-4 Ultrium 1760 SAS (1) in 1U Rack-mount Kit	EH946C
HP StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive	EH958B
HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive in 1U Rack-mount	EJ014B
HP StoreEver LTO-5 Ultrium 3280 SAS External Tape Drive	EH900B
HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive in 3U Rack-mount	EJ013B
HP StoreEver LTO-6 Ultrium 6250 External Tape Drive	EH970A
HP StoreEver 1U SAS Rack-mount Kit	AE459B
HP StoreEver LTO-4 Ultrium 1760 SCSI External Tape Drive	EH922B

HP Tape Storage Systems

HP StoreEver MSL6480

HP StoreEver MSL6480 Scalable Expansion Module

QU626A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information: http://h18000.www1.hp.com/products/quickspecs/14604_na/14604_na.html (Worldwide).

HP StoreEver MSL6480 Scalable Base Module

QU625A

HP MSL2024 0-Drive Tape Library

AK379A

HP MSL4048 0-Drive Tape Library

AK381A

HP MSL Library Extender Kit

AQ746A

HP Disk Backup

HP RDX Removable Disk Backup System

HP RDX1000 USB3.0 External Disk Backup System

B7B69A

HP RDX 2TB USB3.0 External Disk Backup System

E7X53A

NOTE: For the complete range of RDX drives and media see: <http://www.hp.com/go/rdx>.

For hardware and software compatibility of HP disk backup products see: <http://www.hp.com/storage/SPOCK>.

NOTE: Please see the QuickSpecs for additional part numbers, Technical Specifications, and additional information:

http://h18000.www1.hp.com/products/quickspecs/13036_na/13036_na.html (Worldwide).

HP Storage Options

Fibre Channel HBA

NOTE: The following is a list of all Fibre Channel Host Bus Adapters for Windows and Linux. For detailed compatibility information please see: <http://h18006.www1.hp.com/storage/saninfrastructure/hba.html>.

Emulex Fibre Channel HBAs

HP 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter

AJ762B

HP 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter

AJ763B

HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter

C8R38A

HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter

C8R39A

QLogic Fibre Channel HBAs



Additional Options

HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A
HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A
HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter	QW971A
HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A
Converged Network Adapter	
HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HP StoreFabric CN1200E 10Gb Converged Network Adapter	E7Y06A

HP Disk Storage Systems	Disk Enclosures	
	HP D6000 Dual I/O Module Disk Enclosure	QQ695A
	HP D6000 w/35 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 140TB Bundle	E7W30A
	HP D6000 w/70 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 280TB Bundle	E7W31A
	HP D6000 w/35 2TB 6G SAS 7.2K LFF Dual port MDL HDD 70TB Bundle	QQ697A
	HP D6000 w/70 2TB 6G SAS 7.2K LFF Dual port MDL HDD 140TB Bundle	QQ698A
	HP D6000 w/35 3TB 6G SAS 7.2K LFF Dual port MDL HDD 105TB Bundle	QQ699A
	HP D6000 w/70 3TB 6G SAS 7.2K LFF Dual port MDL HDD 210TB Bundle	QQ700A
	HP D2600 w/12 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 48TB Bundle	E7W32A

HP Data Center Racks	HP 11000 G2 Series Racks	
	HP 11642 1075mm Pallet Universal Rack	H6J65A
	HP 11642 1075mm Shock Universal Rack	H6J66A
	HP 11642 1200mm Pallet Universal Rack	H6J67A
	HP 11642 1200mm Shock Universal Rack	H6J68A
	HP 11636 1075mm Pallet Universal Rack	H6J77A
	HP 11636 1075mm Shock Universal Rack	H6J78A
	HP 11614 1075mm Shock Universal Rack	H6J82A
	HP 11622 G2 1075mm Pallet Universal Rack	H6J83A
	HP 11622 G2 1075mm Shock Universal Rack	H6J84A
	HP 11648 1075mm Pallet Universal Rack	H6J87A
	HP 11648 1075mm Shock Universal Rack	H6J88A

NOTE: Please see the [HP 11000 G2 Series Racks QuickSpecs](#) for information on additional racks options and rack specifications.

HP Intelligent Series Rack

HP 636 1075mm Pallet Intelligent Series Rack	BW895A
HP 636 1075mm Shock Intelligent Series Rack	BW896A
HP 642 1075mm Pallet Intelligent Series Rack	BW903A
HP 642 1075mm Shock Intelligent Series Rack	BW904A
HP 642 1200mm Pallet Intelligent Series Rack	BW907A
HP 642 1200mm Shock Intelligent Series Rack	BW908A
HP 647 1075mm Pallet Intelligent Series Rack	BW911A
HP 647 1075mm Shock Intelligent Series Rack	BW912A
HP 647 1200mm Pallet Intelligent Series Rack	BW913A
HP 647 1200mm Shock Intelligent Series Rack	BW914A
HP 842 1075mm Pallet Intelligent Series Rack	BW917A
HP 842 1075mm Shock Intelligent Series Rack	BW918A

NOTE: Please see the [HP Intelligent Series Racks QuickSpecs](#) for information on additional racks options and rack specifications.

HP Value Series Rack

HP V142 1075mm deep Pallet 100 series Rack	AF046A
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Additional Options

NOTE: Please see the [HP Value Series Rack QuickSpecs](#) for information on additional racks options and rack specifications.

HP Power Distribution Units (PDUs)	HP Basic Power Distribution Unit (bPDU)	
	HP 4.9kVA 24A High Voltage NA/JP Core Modular Power Distribution Unit	252663-D74
	HP 8.3kVA 40A High Voltage NA/JP Core Modular Power Distribution Unit	252663-D75
	HP 7.3kVA 32A High Voltage INTL Core Modular Power Distribution Unit	252663-B33
	HP 17.3kVA 48A Three Phase NA/JP Modular Power Distribution Unit	AF511A
	HP 22kVA 32A Three Phase INTL Core Modular Power Distribution Unit	AF518A
	HP 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Basic PDU	H5M56A
	HP 4.9kVA 208 Volt L6-30 Input (20xC13) NA/JP Basic PDU	H5M58A
	HP 7.3kVA 230 Volt IEC309 32A Input (20xC13) INTL Basic PDU	H5M68A
	HP 7.3kVA 230 Volt IEC309 32A Input (24xC13/6xC19) INTL Basic PDU	H5M70A
	NOTE: To learn more about HP Basic Power Distribution Units (bPDU), please visit the HP website at www.hp.com/go/pdu .	
HP Monitored Power Distribution Units (mPDU)		
	HP 2.8kVA 120 Volt L5-30 Input (12xNEMA 5-20R)NA/JP Monitored PDU	D9N43A
	HP 3.6kVA 200-240 Volt Detachable C20 Input (16xC13) WW Monitored PDU	D9N45A
	HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU	D9N47A
	HP 7.3kVA 230 Volt IEC309 32A Input (20xC13/4xC19) INTL Monitored PDU	D9N48A
	HP 7.3kVA 230 Volt IEC309 32A Input (32xC13/4xC19) INTL Monitored PDU	D9N50A
	HP 11kVA 400 Volt IEC309 16A 3-Phase Input (18xC13/3xC19) INTL Monitored PDU	D9N55A
	HP 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N57A
	HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (12xC13/12xC19) NA/JP Monitored PDU	D9N59A
	HP 22kVA 400 Volt IEC309 32A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N56A
	HP 22kVA 400 Volt IEC309 32A 3-Phase Input (12xC13/12xC19) INTL Monitored PDU	D9N60A
	NOTE: Please see the HP Monitored Power Distribution Units QuickSpecs for information on additional options and product specifications.	
HP Intelligent Power Distribution Units (iPDU)		
	HP 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF520A
	HP 8.3kVA 40A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF521A
	HP 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF522A
	HP 17.3kVA 48A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF523A
	HP 17.3kVA 48A 208V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF535A
	HP 4.9kVA 24A Single Phase NA/JP Intelligent Modular Power Distribution Kit	AF531A
	HP 8.6kVA 24A Three Phase NA/JP Intelligent Modular Power Distribution Kit	AF532A
	HP 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit	AF525A
	HP 7.3kVA 32A Single Phase INTL Intelligent Modular Power Distribution Kit	AF534A
	NOTE: Please see the HP Intelligent Power Distribution Units QuickSpecs for information on additional options and product specifications.	
	NOTE: To learn more, please visit the HP Uninterruptible Power Systems (UPS) web page .	
HP USB and SD options		
	HP 32GB SD Enterprise Mainstream Flash Media Kit	700136-B21
	HP 8GB SD Enterprise Mainstream Flash Media Kit	726113-B21
	HP 8GB microSD EM Flash Media Kit	726116-B21
	HP 8GB USB Enterprise Mainstream Flash Media Drive Key Kit	737953-B21
HP Rack Mount Consoles, KVM Switches, and Keyboards	HP Rack Mount Consoles	
	HP TFT7600 G2 KVM Console Rackmount Keyboard US Monitor	AZ870A
	HP TFT7600 G2 KVM Console Rackmount Keyboard Intl Monitor	AZ884A

Additional Options

NOTE: Please see the [HP Rack Console QuickSpecs](#) for information on additional options and product specifications.

HP KVM Switches

HP 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
HP 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
HP Server Console 0x2x8 Port Analog Switch	AF616A
HP Server Console 0x2x16 Port Analog Switch	AF617A
HP 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
HP 1x4 USB/PS2 KVM Console Switch	AF611A

NOTE: To learn more, please visit the [HP KVM Switches](#) web page.

HP 1U Rackmount Keyboard with USB

HP 1U US Rackmount Keyboard with USB	AG072A
HP 1U INT Rackmount Keyboard with USB	AG086A

NOTE: Please see the [HP 1U Rackmount Keyboard QuickSpecs](#) for information on additional options and product specifications.

HP USB Keyboard and Mouse

HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341-B21
HP USB BFR with PVC Free Intl Keyboard/Mouse Kit	672097-B33

NOTE: Please see the [HP USB Keyboard and Mouse QuickSpecs](#) for information on additional options and product specifications.

Rail Kits

HP 1U LFF Gen9 Easy Install Rail Kit	789388-B21
HP 1U Small Form Factor Easy Install Rail Kit	734807-B21
HP 1U Cable Management Arm for Easy Install Rail Kit	734811-B21
HP 1U Small Form Factor Ball Bearing Rail Kit	663201-B21
HP 1U Large Form Factor Ball Bearing Rail Kit	663202-B21
HP 1U Cable Management Arm for Ball Bearing Rail Kit	663203-B21

HP Uninterruptible Power Systems (UPS)

HP Rack-mountable UPS

HP R1.5kVA G3 1U INTL Uninterruptible Power System	AF471A
HP R1.5kVA G3 1U JP/TW Uninterruptible Power System	AF470A
HP R/T3000 G2 2U L530 Low Voltage NA/JP Uninterruptible Power System	AF466A
HP R/T3000 G2 2U Detachable Cord High Voltage INTL Uninterruptible Power System	AF468A
HP R5KVA 3U IEC309-32A High Voltage INTL Uninterruptible Power System	AF461A
HP R7KVA 4U IEC-32A High Voltage INTL Uninterruptible Power System	AF463A

NOTE: To learn more, please visit the [HP Uninterruptible Power Systems \(UPS\)](#) web page.

HP Care Pack Services

HP Install ProLiant DL36x(p) Service	U4506E
HP Startup ProLiant DL36x(p) Service	U4507E
HP 3 year 24x7 DL360 Gen9 w/IC Proactive Care Service	U5HM4E
HP 3 year 24x7 with Defective Media Retention DL360 Gen9 w/IC Proactive Care Service	U5HM5E
HP 3 year 24x7 w/Comprehensive Defective Material Retention DL360 Gen9 w/IC Proactive Care Service	U5HM6E
HP 3 year Call to Repair DL360 Gen9 w/IC Proactive Care Service	U5HN3E
HP 3 year Call to Repair with Defective Media Retention DL360 Gen9 w/IC Proactive Care Service	U5HN4E
HP 3 year CTR with Comprehensive Defective Material Retention DL360 Gen9 w/IC Proactive Care Service	U5HN5E
HP 3 year 24x7 DL360 Gen9 Proactive Care Service	U7AM2E
HP 3 year 24x7 with Defective Media Retention DL360 Gen9 Proactive Care Service	U7AM3E
HP 3 year 24x7 with Comprehensive Defective Material Retention DL360 Gen9 Proactive Care Service	U7AM4E



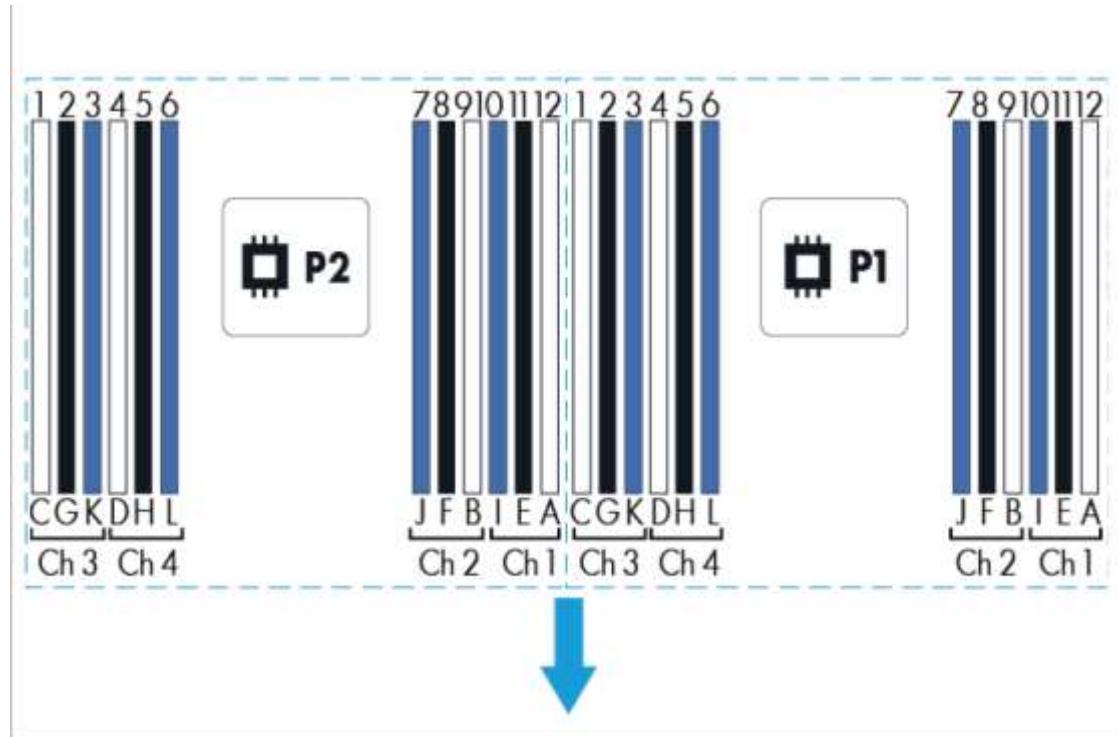
Additional Options

HP 3 year Call to Repair DL360 Gen9 Proactive Care Service	U7AM8E
HP 3 year Call to Repair with Defective Media Retention DL360 Gen9 Proactive Care Service	U7AM9E
HP 3 year CTR with Comprehensive Defective Material Retention DL360 Gen9 Proactive Care Service	U7AN0E

Memory

Memory Subsystem Architecture Each Intel® Xeon® E5-2600v3 family processor socket contains four memory channels per installed processor with three DIMMs per channel for a total of twelve (12) DIMMs or a grand total of twenty-four (24) DIMMs for the server.

Memory Population guidelines



DIMM population order			
	1st slot of channel	2nd slot of channel	3rd slot of channel
	A B C D	E F G H	I J K L
Number of DIMMs to install	4		
		8	
			12

General Memory Population Rules and Guidelines:

- White DIMM slots denote the first slot of a channel. For 1 DPC (DIMM per channel) populate white slots only.
- A minimum of one DIMM is required per server.
- Install DIMMs only if the corresponding processor is installed.
- When two processors are installed, balance the DIMMs across the two processors.
- Populate DIMMs from heaviest load (quad-rank) to lightest load (single-rank) within a channel. Heaviest load (DIMM with most ranks) within a channel goes furthest from the processor.
- Do not mix RDIMMs or LRDIMMs.
- DIMMs of different speeds may be mixed in any order; the server will select a common optimal speed.
- The maximum memory speed is a function of the memory type, memory configuration, and processor model.
- The maximum memory capacity is a function of the memory type and number of installed processors.
- HP memory from previous generation servers is not compatible and will not work with the DL360 Gen9 Server.
- To realize the performance memory capabilities listed in this document, HP SmartMemory is required. For additional information, please see the HP SmartMemory QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/14225_na/14225_na.html.

Memory

- For memory population rules and additional memory guidelines, please see the DL360 Gen9 user guide at <http://www.hp.com/support>.
- There are four (4) Memory channels per processor; eight (8) channels per 2 processor server.
- There are three (3) DIMM slots for each memory channel; twenty four (24) total slots for 2 processor server.

Intel Gen9 Supported Memory Bandwidth for HP ProLiant Gen9 Intel® Xeon® E5-2600v3 Series Processor Family

Memory Bandwidth and Capacity

[DIMM Type]	Registered Dimms (RDIMMs)	
DIMM Rank	Single Rank	Dual Rank
DIMM Capacity	8GB	16GB
Voltage	Std Voltage 1.35V	
SLOTS THAT CAN BE POPULATED		
24 slot servers	24	
MAXIMUM CAPACITY (GB)		
	192	384
1 DIMM Per Channel	2133	
2 DIMM Per Channel	2133	
3 DIMM Per Channel	1600	1600

Memory Speed by Processor Model

Processor Models	Supported Memory Speeds
E5-2603v3, E5-2609v3,	1600MHz
E5-2620v3, E5-2623v3, E5-2630v3, E5-2640v3, E5-2630Lv3,	1866MHz
E5-2637v3, E5-2643v3, E5-2650v3, E5-2660v3, E5-2667v3, E5-2670v3, E5-2680v3, E5-2683v3, E5-2690v3, E5-2695v3, E5-2697v3, E5-2698v3, E5-2699v3, E5-2650Lv3, E5-2687Wv3,	2133MHz

DDR4 memory options part number decoder

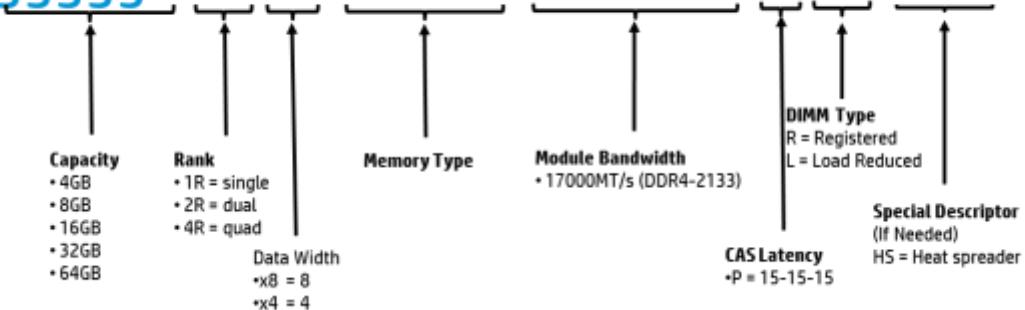
NOTE: Capacity references are rounded to the common gigabyte (GB) values.

- 8GB = 8,192MB
- 16GB = 16,384MB
- 32GB = 32,768MB
- 64GB = 65,536MB



Memory

HP ggggg eRxff DDR4 wwwwm a bb-ccd Kit

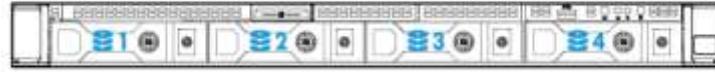


Storage



1-8

8 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays



1-4

4 x LFF SATA/SAS/SSD Hot Pluggable Hard Drives Bays



1-10

10 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

Technical Specifications

System Unit	Dimensions (H x W x D)	8 SFF and 10 SFF 1.7 x 17.1 x 27.5 inches (4.32 x 43.47 x 69.85 cm) 4 LFF - 1.7 x 17.1 x 29.5 inches (4.32 x 43.46 x 75.0 cm)
	Weight (approximate)	Maximum: (all hard drives, power supply, and processor installed) Minimum: (one hard drive, power supply, and processor installed) 4 LFF Chassis 33.3 lb. (15.31 kg) 8SFF Chassis 27 lb. (12.25 kg) 4 LFF Chassis 30.36 lb. (13.77 kg)
	Input Requirements	Range Line Voltage 100 to 120 VAC 200 to 240 VAC
	BTU Rating	Maximum For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
Power Supply Output	Rated Steady-State Power	For 1400W Power Supply: 1400W (at 100 VAC), 1400W (at 240 VAC), 1400W (at 240 VAC) For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
	Maximum Peak Power	For 1400W Power Supply: 1400W (at 100 to 127 VAC), 1400W (at 200 to 240 VAC), 1400W (at 240 VAC) input for China only For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 VAC), 800W (at 240 VAC) input for China only For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only
System Inlet Temperature	Standard Operating Support	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. For approved hardware configurations, the supported system inlet range is extended to be: 5° to 40°C (41° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: www.hp.com/servers/ashrae
	Extended Ambient Operating Support	For approved hardware configurations, the supported system inlet range is extended to be: 5° to 45°C (41° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: www.hp.com/servers/ashrae
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity	Operating	Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity. Maximum to be the lower (less moisture) of 24°C (75.2°F) dew point or 90% relative humidity.

Technical Specifications

(non-condensing)	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Acoustic Noise	Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).	
Idle	L WAd	(1P non-redundant) 4.6 A Average Bystander (2P redundant) 5.5 A Average Bystander
	L pAm	(1P non-redundant) 29 dBA (2P redundant) 37 dBA
Operating	L WAd	(1P non-redundant) 4.6 A Average Bystander (2P redundant) 6.2 C Average Bystander
	L pAm	(1P non-redundant) 30 dBA (2P redundant) 46 dBA
NOTE: 1P Configuration tested included two Intel E5-2630 v3, 2.3GHz processors, one 500GB SAS HDD, five standard hot plug fans, one 8GB DDR4 RDIMM's 2133MHz, one 500W power supply.		
NOTE: 2P Configuration tested included two Intel E5-2650 v3, 2.6GHz processors, one 500GB SAS HDD, seven standard hot plug fans, two 16GB DDR4 RDIMM's 2133MHz, one 500W power supply, P440ar HDD controller PCI card with 2GB cache.		
NOTE: Values are subject to change without notification and are for reference only.		
NOTE: Performance of system, options, and ancillary equipment will vary depending on the system configuration.		
NOTE: Levels presented do not account for non-Hewlett-Packard installed hardware.		
Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1	
NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.		

HP Dynamic Smart

Array B140i

Controller

Number of PCI links	Four
PCI link rate	4 Gb/s
Storage protocol support	SATA
SAS/SATA peak data transfer rate	6 Gb/s
Number of SAS/SATA links	10 links
SAS/SATA connectivity	2x4 connectors; 2x1 connectors
Expander support	No
Drives supported (max)	Up to 10 Internal Drives
RAID support	0, 1, 10, 5 SATA

Technical Specifications

Software management	HP SSA, SMH, SIM
Warranty	Server warranty
HP Secure Encryption license	Not Supported
HP SmartCache License	Not Supported
HP Smart Storage Administrator	Supported

HP Ethernet 1Gb 4- port 331i Adapter	10Base-T/100Base-TX/1000Base-TX
	IEEE 802.3 10Base-T
Compatibility	IEEE 802.3ab 1000Base-T
	IEEE 802.3u 100Base-TX
Ports	
Data Transfer Method	PCI Express, two lanes (x2)
Controller	BCM5719
	10Base-T (Half-Duplex) 10 Mb/s per port, 40 Mb/s combined
	10Base-T (Full-Duplex) 20 Mb/s per port, 80 Mb/s combined
	100Base-TX (Half-Duplex) 100 Mb/s per port, 400 Mb/s combined
Network Transfer Rate	1000Base-TX (Half and Full-Duplex) 200 Mb/s per port, 800 Mb/s combined
	1000Base-TX (Full-Duplex) 1000 Mb/s per port, 4000 Mb/s combined
	1000Base-TX (Full-Duplex) 2000 Mb/s per port, 8000 Mb/s combined
Connector	Four RJ-45
Cable Support	10 Base-T Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
	10/100/1000 Base-TX Category 5 or higher UTP; up to 328 ft (100 m)

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green . To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner.
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The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: <http://www.hp.com/go/green>. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.



hp.com/qref/dl360gen9

Summary of Changes

Date	Version History	Action	Description of Change
10/13/2014	From Version 2 to 3	Added	6G SATA Enterprise Value G1 Solid State Drives were added to Core Option section. HP PCIe Workload Accelerator Options, HP USB and SD options were added to the Additional Options section. Smart Buys section was added to NA version.
		Changed	Call outs description for images, Standard Features, Optional Features, Pre-Configured Models, Configuration Information - Factory Integrated Models, Core Options, Additional Options, and Memory sections were revised.
9/22/2014	From Version 1 to 2	Changed	Changes made throughout the QuickSpecs.

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For hard drives, 1GB = 1 billion bytes. Actual formatted capacity is less